IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Richard BODIN et al.	§	Attorney Docket No.: 16048ROUS01U / 22171.353
	§	
	§	Customer No. 27683
Serial No.: 10/630,999	§	
	§	Group Art Unit: 2616
Filed: July 30, 2003	§	
	§	Examiner: Zaidi, Syed
For: PROVIDING PACKET-BASED MULTIMEDIA SERVICES VIA A CIRCUIT BEARER	§	Confirmation No.: 7723

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF

A timely Notice of Appeal was previously filed on March 12, 2008, in order to initiate an appeal from the action of the Primary Examiner in finally rejecting all of the pending claims (Claims 1-20) in an Office Action mailed on December 12, 2007. This Appeal Brief is being filed pursuant to the provisions of 37 C.F.R. §41.37, including the fee of $510 under 37 C.F.R. §41.37(a)(2) and §41.20(b)(2) for filing this Appeal Brief.

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REAL PARTY IN INTEREST

The real party in interest is NORTEL NETWORKS LIMITED, a Canadian company having a principle place of business at 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec H4S 2A9, Canada.

RELATED APPEALS AND INTERFERENCES

There are no prior or pending appeals, interferences or judicial proceedings known to appellant, appellant's legal representative, or the assignee that may be related to, directly affect, be directly affected by or have a bearing on the Board's decision in the present appeal.

STATUS OF CLAIMS

Claims 1-20 are all pending, have all been finally rejected, and are all on appeal here.

STATUS OF AMENDMENTS

No amendment or response has been filed since mailing of the final rejection on December 12, 2007.

SUMMARY OF CLAIMED SUBJECT MATTER

To clarify the summary of the claimed subject matter, at least some representative portions of the specification and drawings related to the recited claim elements are set forth parenthetically below. However, there may be further portions of the specification and/or drawings that are also relevant to the claimed subject matter.

The subject matter recited in independent Claim 1 of the present application relates to a method (Fig. 1, reference no. 100; paragraph [0016]) of providing a packet-based multimedia service to a mobile device (Fig. 2, reference no. 236) in a network (Fig. 2, reference no. 200), wherein the service is defined by a telecommunication standard (e.g., 3GPP IMS Standard; paragraph [0024]), and wherein the network does not support packet quality of service (QoS) functionality (paragraphs [0019 and 24]) as required by the standard, the method comprising:

establishing a packet signaling connection between the mobile device and network (Fig. 1, reference no. 102; paragraph [0018]);

establishing a circuit bearer connection between the mobile device and network (Fig. 1, reference no. 104; paragraph [0018]);

transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard (Fig. 1, reference no. 108; paragraph [0019]); and

transferring data for the multimedia service via the circuit bearer connection in alignment with the standard (Fig. 1, reference no. 110; paragraph [0019]), wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality (paragraphs [0019 and 24]).

The subject matter recited in independent Claim 8 of the present application relates to a method (Fig. 1, reference no. 100; paragraph [0016]) for providing a packet-based multimedia service to an endpoint in a wireless network (Fig. 2, reference no. 200), wherein the service is

defined by a telecommunications standard (e.g., 3GPP IMS Standard; paragraph [0024]), and wherein the network does not support a packet quality of service (QoS) mechanism (paragraphs [0019 and 24]) specified by the standard, the method comprising:

establishing a packet-based signaling context (paragraph [0027]) between the endpoint (Fig. 3, reference no. 306) and a gateway (Fig. 3, reference no. 318);

establishing a circuit bearer leg (Fig. 3, reference no. 320; Fig. 4) between the endpoint and the gateway using the signaling context (paragraphs [0027 through 33]); and

controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard (paragraph [0026]).

The subject matter recited in independent Claim 15 of the present application relates to a telecommunications system for providing a packet-based multimedia service to a mobile station (MS) (Fig. 2, reference no. 236) in a wireless network (Fig. 2, reference no. 200), wherein the service is defined by a telecommunications standard (e.g., 3GPP IMS Standard; paragraph [0024]), and wherein the network does not support a packet quality of service (QoS) mechanism (paragraphs [0019 and 24]) specified by the standard, the system comprising:

a proxy call session control function (P-CSCF) (Fig. 3, reference no. 314; paragraph [0025]);

a media gateway (Fig. 3, reference no. 318; paragraph [0026]) connected to the P-CSCF; and

a plurality of instructions for executing within the network, the instructions for:

establishing a packet signaling connection (Fig. 3, reference no. 302; paragraph [0027) between the MS (Fig. 3, reference no. 306) and the P-CSCF;

establishing a circuit bearer connection (Fig. 3, reference no. 320; paragraph [0027]) between the MS and the media gateway (Fig. 3, reference no. 318);

transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard (paragraph [0026 and 33]); and

transferring data for the multimedia service between the media gateway and the MS via the circuit bearer connection in response to the signaling information (paragraph [0026]).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether Claims 1-7 are unpatentable under 35 U.S.C. §103 as obvious in view of a proposed combination of Ejzak et al. (U.S. Patent 6,721,565 hereinafter referred to as "Ejzak") and Mo et al. (U.S. Patent 7,177,304 hereinafter referred to as "Mo").

2. Whether Claims 8-14 are unpatentable under 35 U.S.C. §103 as obvious in view of a proposed combination of Ejzak and Mo.

3. Whether Claims 15-20 are unpatentable under 35 U.S.C. §103 as obvious in view of a proposed combination of Surdila et al. (U.S. Patent Application Publication 2002/0110104 A1 hereinafter referred to as "Surdila) and Ejzak.

ARGUMENT

I. THE §103 REJECTIONS OF CLAIMS 1-7

Claims 1-7 stand rejected under 35 U.S.C. §103 as obvious in view of a proposed combination of Ejzak and Mo. However, it is respectfully submitted that Claims 1-7 are not obvious in view of Ejzak and Mo. In this regard, the PTO recognizes in MPEP §2142 that:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Applicants respectfully submit that Ejzak and Mo fail to establish a *prima facie* case of obviousness under §103 with respect to Claims 1-7, for reasons that are discussed below.

The Prior Art Must Teach All Claim Limitations Under §103

As discussed in MPEP §2142, case law relating to §103 requires that:

> To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. . . . *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Applicants' Claim 1 includes a recitation of:

> A method for providing a packet-based multimedia service to a mobile device in a network, wherein the service is defined by a telecommunications standard, and wherein the network does not

support packet quality of service (QoS) functionality as required by the standard, the method comprising:

establishing a packet signaling connection between the mobile device and network;

establishing a circuit bearer connection between the mobile device and network;

transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard; and

transferring data for the multimedia service via the circuit bearer connection in alignment with the standard, wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality.

Applicants respectfully submit that neither Ejzak nor Mo, alone or in combination, teach or suggest all the features of Claim 1. The Examiner conceded that Ejzak fails to teach a network that does not provide quality of service (QoS) functionality as required by the standard as recited in claim 1. More specifically, the Examiner stated that "Ejzak et al. fail to teach the method ignored [sic] the required QoS functionality." (Final Office Action, pg. 6).

Because Ejzak fails to teach a network that does not support QoS functionality as required by the standard, Ejzak is necessarily precluded from disclosing "establishing a packet signaling connection between the mobile device and network" wherein the network "does not support the required QoS functionality" as described in the subject application and explicitly claimed in Claim 1.

Similarly, Ejzak is necessarily precluded from disclosing a method of "**establishing a circuit bearer connection between the mobile device and network**", and "transferring data for

the multimedia service via the circuit bearer connection in alignment with the standard" wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though **the network does not support the required QoS functionality**, because, as conceded by the Examiner, Ejzak does not disclose the various steps of establishing and transferring **in a network that does not support the required QoS functionality**.

With further regard to the claim 1 limitation of "transferring data for the multimedia service via the circuit bearer connection in alignment with the standard," the Examiner has cited the following passage of Ejzak as allegedly disclosing such a method:

> The term "call" is used herein to refer to a session of information transfer between a set of terminals via a telecommunications system or network, and is intended to include, but not be limited to traditional circuit voice calls, packet voice calls, circuit data calls, connectionless calls, or packet data calls, and multimedia variants thereof. This application will refer to calls involving two terminals, but one of skill in the art will appreciate how to modify the exemplary embodiment to support multi-party calls in keeping with the spirit of the present invention. (Ejzak, Col. 7, Lines 11-20).

Applicants respectfully disagree. Ejzak describes a system featuring circuit and packet call models. In the cited passage, Ejzak only generally describes the term call as applicable in circuit switched and packet switched networks, depending on the particular network. Ejzak in no manner, however, describes a system in which a single mobile device has a packet signaling connection for the transfer of signaling information of a multimedia service, and a **circuit bearer connection** for "**transferring data for the multimedia service**."

With still further regard to the Claim 1 limitation of "transferring data for the multimedia

service via the circuit bearer connection in alignment with the standard," the Examiner stated that "Nevertheless in the same field of endeavor, Mo et al., support and show does not support [sic] the required QoS functionality (Column #1 and lines 35-38)." (Final Office Action, pg. 6).

Here, the Examiner apparently alleges that Mo cures the deficiencies of Ejzak. Applicants respectfully disagree. The passage of Mo cited by the Examiner is as follows:

> ...asynchronously, it largely ignored considerations such as Quality of Service (QoS) for VoIP. Accordingly, as VoIP evolves, more and more efforts are being made to ensure an acceptable QoS over networks, such as IP networks. (Mo, Col. 1, Lines 35-38).

From the above Mo only generally descries the initial lack of QoS provisioning in IP networks. However, Mo does not in any manner describe the transfer of data to a mobile device for a multimedia service over a circuit bearer connection that has singling information transferred over a packet signaling connection with the mobile device. In fact, Mo only generally describes a packet network that interfaces with a circuit switched device via a voice gateway that establishes a packet connection in the network on behalf of the circuit switched device. For example, Figure 1 of Mo shows the following:

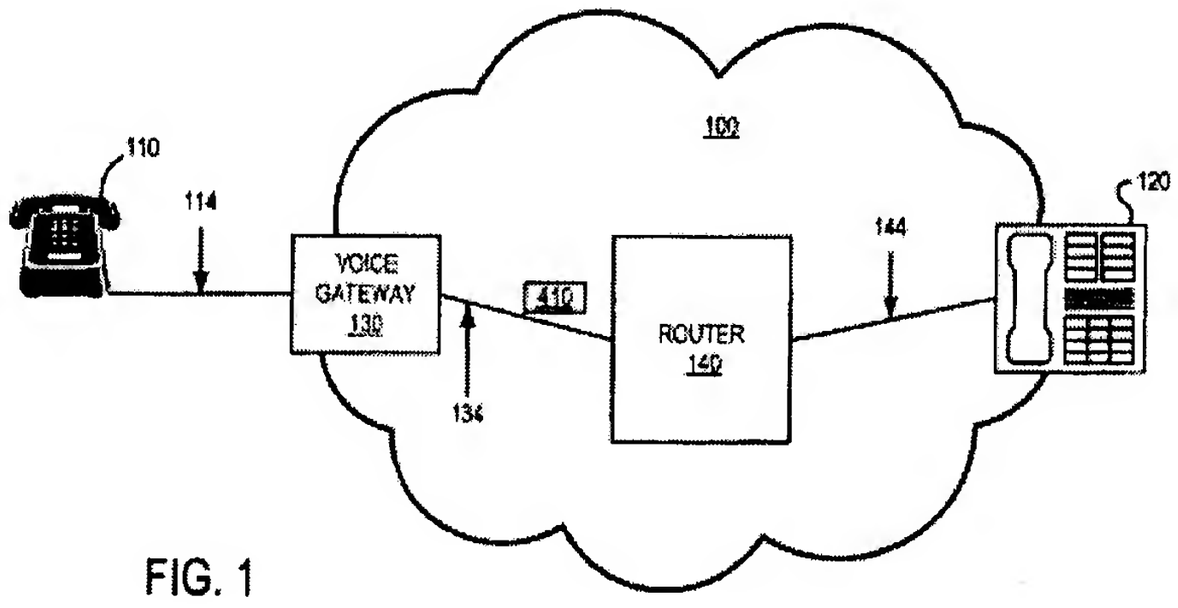


FIG. 1

With regard to Figure 1, Mo recites the following:

> Network 100 may be any packet switched communications network, such as the internet, a local area network (LAN), a metropolitan area network (MAN), an intranetwork of an organization, etc.
>
> A **telephone 110 is a common, circuit switched telephone**. Its user makes a call to a telephone 120, which is a packet switched telephone, also known as IP telephone. Since telephone 120 is accessible through network 100, a connection is established through network 100.
>
> More particularly, **telephone 110 first establishes a connection 114 with a voice gateway 130 in network 100. Voice gateway 130 establishes a packet switched connection 134 with a router 140**, and router 140 establishes a packet switched connection 144 with telephone 120, to complete the connection. (Mo, Col. 3, Lines 4-18) (Emphasis added).

Thus, Mo describes a system that connects a circuit switched phone with a packet switched phone. However, Mo in no manner describes or suggest a mobile device, or any telephony device for that matter, that has both a packet signaling connection and a circuit bearer connection established therewith. Consequently, Mo wholly fails to describe or suggest a method of "transferring data for the multimedia service via the circuit bearer connection" that has had signaling information transferred "via the packet signaling connection" because Mo does not

describe any single device with both a packet signaling connection and a circuit bearer connection.

The Examiner stated that "Mo et al. disclose that initial IP design on asynchronous data transfers largely ignored QoS for VoIP (column 1 lines 33-36) … [t]herefore, Mo et al. evidently show there are networks that do not support QoS and still allows mobile device to communicate to one another." (Final Office Action, pg. 3) (Emphasis in original). However, there is a stark contrast between disclosing that initial IP designs on asynchronous data transfers largely ignored QoS for VoIP and, disclosing "transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard, and transferring data for the multimedia service via the circuit bearer connection in alignment with the standard, wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality," as recited in Claim 1.

As stated in the BACKGROUND section of the present application:

> Standards (such as IMS) that address the delivery of multimedia services via a packet based network generally require quality of service (QoS) mechanisms that are intended to ensure a certain level of quality. **However, most wireless packet networks require relatively substantial enhancements before such QoS mechanisms can be provided, which slows down the implementation of the associated standards**. For example, while IMS provides a framework to support the delivery of multimedia services in a wireless network, most wireless networks need upgrades to their access/radio layers, as well as to their packet core/general packet radio service (GPRS) subsystems before IMS can be properly supported. Implementing these upgrades may involve a considerable amount of time and expenses, as the

> upgrades will need to be developed, deployed, and tested. (Present Application, paragraph [0003]) (Emphasis added).

Accordingly, Claim 1 of the present application relates to a method of providing a packet-based multimedia service to a mobile device in a network, wherein the service is defined by a telecommunication standard, and wherein the network does not support packet quality of service (QoS) functionality as required by the standard.

Thus, for this independent reason, it is respectfully submitted that Claim 1 is not obvious in view of Ejzak and Mo.

Request For Relief

For each of the various different reasons discussed above, it is respectfully submitted that Claim 1 is not rendered obvious under §103 by the proposed combination of Ejzak and Mo. It is therefore respectfully requested that the Board reverse the §103 rejection of Claim 1.

Claims 2-7 depend from, either directly or indirectly, and further limit Claim 1, and are believed to be allowable for at least the same reasons as Claim 1.

II. THE §103 REJECTION OF CLAIMS 8-14

Claims 8-14 stand rejected under 35 U.S.C. §103 as obvious in view of a proposed combination of Ejzak and Mo. However, it is respectfully submitted that these claims are not obvious in view of Ejzak and Mo. As noted earlier, the PTO recognizes in MPEP §2142 that:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Applicants respectfully submit that Ejzak and Mo fail to establish a *prima facie* case of obviousness under §103 with respect to Claim 8, for reasons that are discussed below.

The Prior Art Must Teach All Claim Limitations Under §103

As discussed in MPEP §2142, case law relating to §103 requires that:

> To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. . . . *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Applicants' Claim 8 includes a recitation of:

> A method for providing a packet-based multimedia service to an endpoint in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard, the method comprising:
>
> establishing a packet-based signaling context between the endpoint and a gateway;
>
> establishing a circuit bearer leg between the endpoint and the gateway using the signaling context; and
>
> controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard.

Applicants respectfully submit that neither Ejzak nor Mo, alone or in combination, teach or suggest all the features of Claim 8. The Examiner conceded that Ejzak fails to teach a network that does not provide quality of service (QoS) functionality as required by the standard as recited in claim 8. More specifically, the Examiner stated that "Ejzak et al. fail to teach the method ignored [sic] the required QoS functionality." (Final Office Action, pg. 6).

Because Ejzak fails to teach a network that does not support QoS functionality as required by the standard, Ejzak is necessarily precluded from disclosing a method of "establishing a packet-based signaling context between the endpoint and a gateway" included in the network that does not "support a packet quality of service (QoS) mechanism" and a gateway, as recited in Claim 8. Moreover, Ejzak is necessarily precluded from disclosing a method of "establishing a circuit bearer leg between the endpoint" included in the network that does not "support a packet quality of service (QoS) mechanism" and the gateway using the signaling context, as recited in Claim 8.

With regard to the Claim 8 limitation of "controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard," the Examiner cites the following passage of Ejzak as allegedly disclosing the subject method step of Claim 8:

> Following the handover, the provision of features requested by the user (to the extent they may be available in the circuit system 120) continue to be managed by MSC 124 of circuit system 120 (or another anchor MSC if present). In step 824, the serving MSC releases resources that were previously allocated to the call, to the extent they are not required to support the connections between MG 150, MSC 124, and PSTN 132. The method ends at step 826.

(Ejzak, Col. 13, Lines 46-53).

Applicants respectfully disagree. Here, Ejzak describes a handover between a packet-switched network and a circuit-switched network. However, Ejzak is wholly silent with regard to any mechanism for controlling the "transfer of data via the circuit bearer" leg using the signaling context that **is used to control the provision of the packet-based multimedia service via the circuit bearer leg** in alignment with the standard as described in the subject application and expressly recited in Claim 8.

The Examiner apparently alleges that Mo cures the deficiencies of Ejzak. More specifically, the Examiner stated that "Nevertheless in the same field of endeavor, Mo et al., support and show does not support [sic] the required QoS functionality (Column #1 and lines 35-38)." (Final Office Action, pg. 6). Applicants respectfully disagree. The passage of Mo cited by the Examiner is as follows:

> …asynchronously, it largely ignored considerations such as Quality of Service (QoS) for VoIP. Accordingly, as VoIP evolves, more and more efforts are being made to ensure an acceptable QoS over networks, such as IP networks. (Mo, Col. 1, Lines 35-38).

From the above Mo only generally descries the initial lack of QoS provisioning in IP networks. However, Mo does not in any manner describe the transfer of data to a mobile device for a multimedia service over a circuit bearer connection that has singling information transferred over a packet signaling connection with the mobile device. In fact, Mo only generally describes a packet network that interfaces with a circuit switched device via a voice gateway that establishes a packet connection in the network on behalf of the circuit switched device. For example, Figure 1 of Mo shows the following:

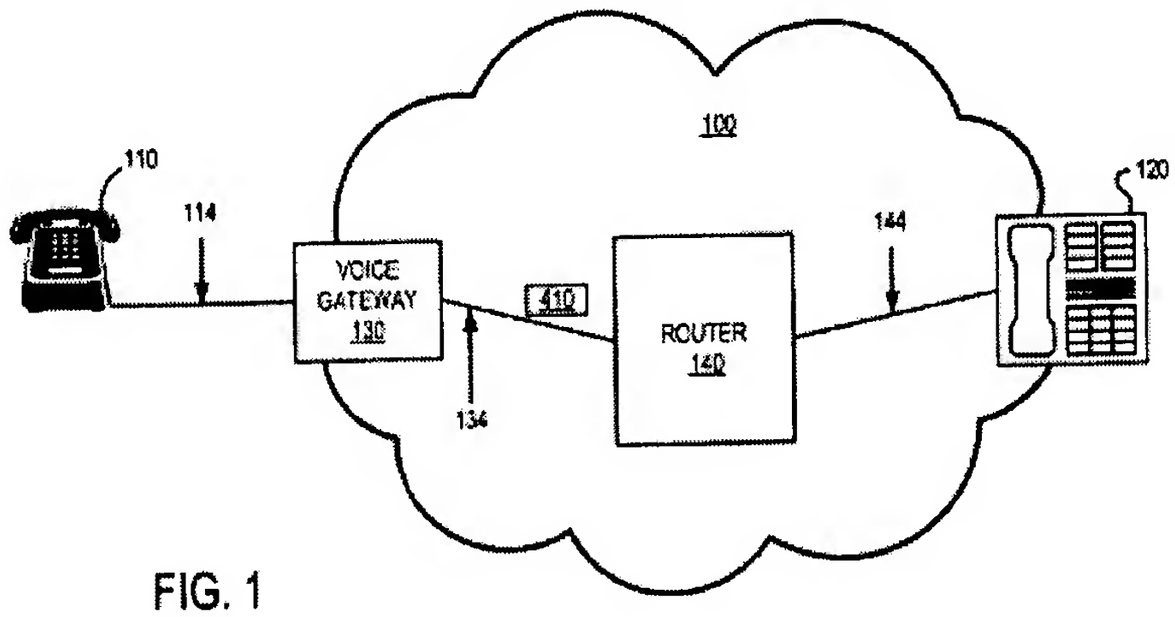


FIG. 1

With regard to Figure 1, Mo recites the following:

> Network 100 may be any packet switched communications network, such as the internet, a local area network (LAN), a metropolitan area network (MAN), an intranetwork of an organization, etc.
>
> A **telephone 110 is a common, circuit switched telephone**. Its user makes a call to a telephone 120, which is a packet switched telephone, also known as IP telephone. Since telephone 120 is accessible through network 100, a connection is established through network 100.
>
> More particularly, **telephone 110 first establishes a connection 114 with a voice gateway 130 in network 100. Voice gateway 130 establishes a packet switched connection 134 with a router 140**, and router 140 establishes a packet switched connection 144

> with telephone 120, to complete the connection. (Mo, Col. 3, Lines 4-18) (Emphasis added).

Thus, Mo describes a system that connects a circuit switched phone with a packet switched phone. However, Mo in no manner describes or suggest a mobile device, or any telephony device for that matter, that has both a packet signaling connection and a circuit bearer connection established therewith. Consequently, Mo wholly fails to describe or suggest a method of "controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard" because Mo does not describe any single device with both a packet signaling connection and a circuit bearer connection.

The Examiner stated that "Mo et al. disclose that initial IP design on asynchronous data transfers largely ignored QoS for VoIP (column 1 lines 33-36) … [t]herefore, Mo et al. evidently show there are networks that do not support QoS and still allows mobile device to communicate to one another." (Final Office Action, pg. 3) (Emphasis in original). However, there is a stark contrast between disclosing that initial IP designs on asynchronous data transfers largely ignored QoS for VoIP and, disclosing "controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard" in a network that does not "support a packet quality of service (QoS) mechanism," as recited in Claim 8.

As stated in the BACKGROUND section of the present application:

> Standards (such as IMS) that address the delivery of multimedia services via a packet based network generally require quality of service (QoS) mechanisms that are intended to ensure a certain level of quality. **However, most wireless packet networks require relatively substantial enhancements before such QoS**

> **mechanisms can be provided, which slows down the implementation of the associated standards**. For example, while IMS provides a framework to support the delivery of multimedia services in a wireless network, most wireless networks need upgrades to their access/radio layers, as well as to their packet core/general packet radio service (GPRS) subsystems before IMS can be properly supported. Implementing these upgrades may involve a considerable amount of time and expenses, as the upgrades will need to be developed, deployed, and tested. (Present Application, paragraph [0003]) (Emphasis added).

Accordingly, Claim 8 of the present application relates to a method for providing a packet-based multimedia service to an endpoint in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard.

Thus, for this independent reason, it is respectfully submitted that Claim 8 is not obvious in view of Ejzak and Mo.

Request For Relief

For each of the various different reasons discussed above, it is respectfully submitted that Claim 8 is not rendered obvious under §103 by the proposed combination of Ejzak and Mo. It is therefore respectfully requested that the Board reverse the §103 rejection of Claim 8.

Claims 9-14 depend from, either directly or indirectly, and further limit independent Claim 8 and thus, are allowable for at least the same reasons as Claim 8.

I. THE §103 REJECTIONS OF CLAIMS 15-20

Claims 15-20 stand rejected under 35 U.S.C. §103 as obvious in view of a proposed combination of Surdila and Ejzak. However, it is respectfully submitted that Claims 15-20 are not obvious in view of Surdila and Ejzak. In this regard, the PTO recognizes in MPEP §2142 that:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Applicants respectfully submit that Surdila and Ejzak fail to establish a *prima facie* case of obviousness under §103 with respect to Claims 15-20, for mutually exclusive reasons that are discussed below.

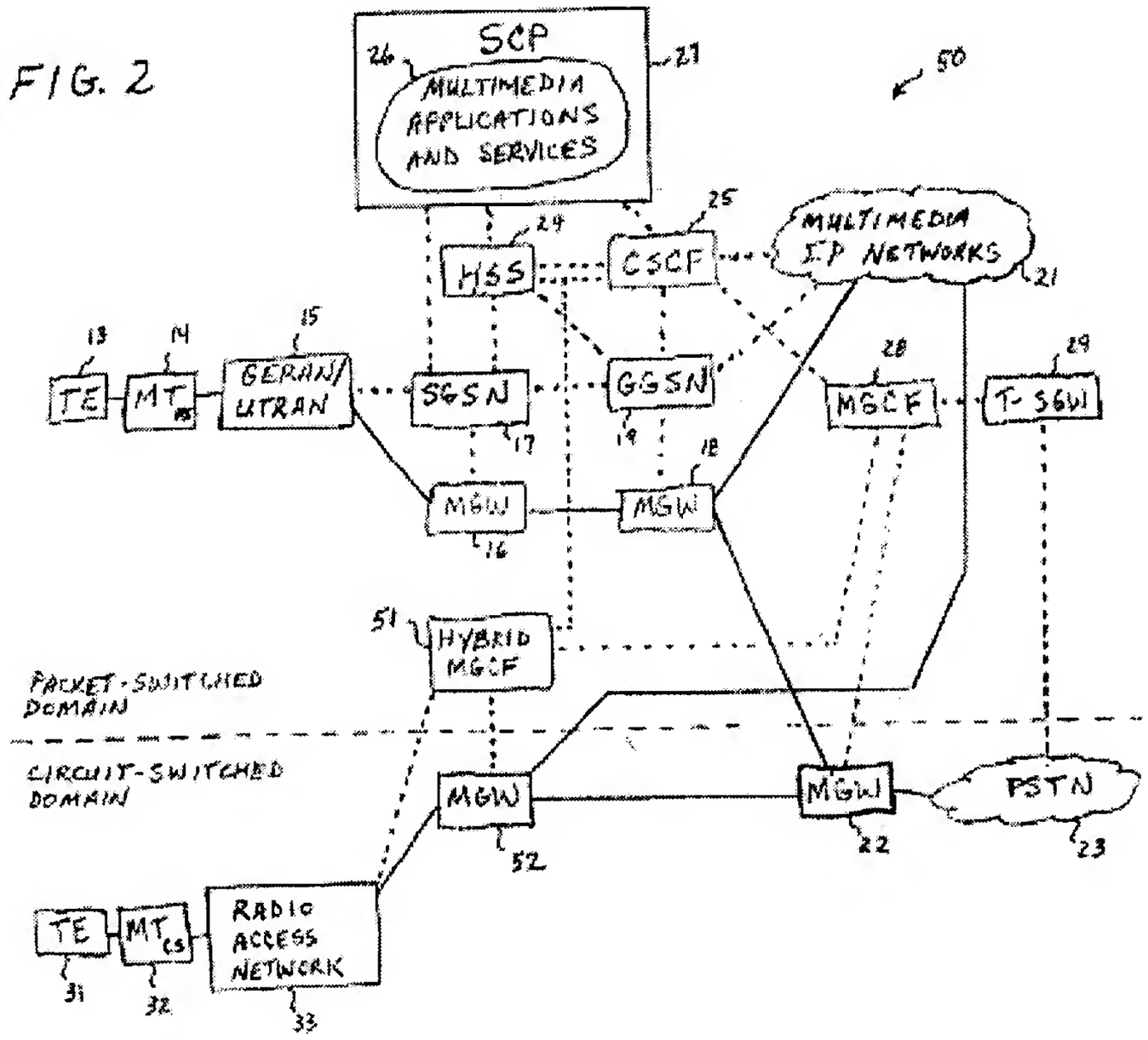
The PTO Cannot Establish Obviousness With Art That Teaches Away

In evaluating obviousness, it is not proper to selectively consider only part of a reference, while ignoring other parts that teach away from the invention. More specifically, as discussed in MPEP §2141.02, case law has established that:

> A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). (Emphasis in original).

In the present case, the Surdila reference discloses only mobile stations capable of one of a packet-switched operation or a circuit-switched operation. Thus, Surdila is directed to a system in which the establishment of both a packet signaling connection and a circuit-switched bearer connection with a common mobile station is neither described nor suggested. For example, Figure 2 of Surdila is as follows:

FIG. 2



As is clearly depicted by Surdila, mobile terminals operating in the system of Surdila operate in either a packet-switched mode (e.g., mobile terminal 14) or in a circuit-switched mode (e.g., mobile terminal 32). Thus, the system of Surdila clearly teaches away from Claim 15, recited above, in which both a circuit-switched and packet-switched connection are established with a common mobile station.

Since it is well recognized that teaching away from the claimed invention is a *per se* demonstration of lack of *prima facie* obviousness, it is clear that the Examiner has not borne the initial burden of factually supporting any *prima facie* conclusion of obviousness.

Thus, for this reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and it is respectfully submitted that Claim 15 is not obvious in view of Surdila and Ejzak.

The Prior Art Must Teach All Claim Limitations Under §103

As discussed in MPEP §2142, case law relating to §103 requires that:

> To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. . . . *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Applicants' Claim 15 includes a recitation of:

> A telecommunications system for providing a packet-based multimedia service to a mobile station (MS) in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard, the system comprising:
>
> a proxy call session control function (P-CSCF);
>
> a media gateway connected to the P-CSCF; and
>
> a plurality of instructions for executing within the network,

the instructions for:

establishing a packet signaling connection between the MS and the P-CSCF;

establishing a circuit bearer connection between the MS and the media gateway;

transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard; and

transferring data for the multimedia service between the media gateway and the MS via the circuit bearer connection in response to the signaling information.

Applicants respectfully submit that neither Surdila nor Ejzak, alone or in combination, teach or suggest all the features of Claim 15. With regard to the Claim 15 limitation of "establishing a packet signaling connection between the MS and the P-CSCF," the Examiner cited the following passage of Surdila as allegedly disclosing such a system:

The core network also includes a Media Gateway Control Function (MGCF) 28 and a Transport Signaling Gateway Function (T-SGW) 29 that exchange control signaling with entities in the circuit-switched domain. The MGCF 28 is the PSTN/PLMN termination point for a defined network. The MGCF controls the parts of the call state that pertain to connection control for media channels in the Media Gateway (MGW). The MGCF selects a CSCF depending on the routing number for incoming calls from legacy

networks and communicates with the CSCF. The MGCF performs protocol conversion between the legacy call control protocols (for example, ISUP) and the 3GPP network call control protocols. The T-SGW 29 maps call-related signaling to/from the PSTN/PLMN on an IP bearer and sends it to/from the MGCF. (Surdila, paragraph [0022]).

With regard to the Claim 15 limitation of "establishing a circuit bearer connection between the MS and the media gateway," the Examiner cited the following passages of Surdila as allegedly disclosing such a system:

> One possible solution is to merely eliminate the circuit-switched portion of the access network. This requires new mobile terminals that are capable of supporting the Universal Mobile Telecommunications System (UMTS), GPRS, or the Enhanced Data Rates for GSM Evolution (EDGE) which provide packet-switched access. However, the existing base of circuit-switched mobile terminals is very large, so it is desirable to maintain the circuit-switched access capability and merge it with the packet-switched access. (Surdila, paragraph [0009]).

With regard to paragraph [0022] of Surdila, Surdila only generally describes exchange of signaling with a circuit-switched domain. With regard to paragraph [0009] of Surdila, Surdila generally describes mobile terminals that support packet-switched access and mobile terminals that support circuit-switched access. The Surdila reference is wholly silent with regard to establishing **both** a packet signaling connection and a circuit bearer connection with the same mobile station.

With regard to the Claim 15 limitation of "transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard," the Examiner cited the following passages of Surdila as allegedly disclosing such a system mechanism:

> [0022] The core network also includes a Media Gateway Control Function (MGCF) 28 and a Transport Signaling Gateway Function (T-SGW) 29 that exchange control signaling with entities in the circuit-switched domain. The MGCF 28 is the PSTN/PLMN termination point for a defined network. The MGCF controls the parts of the call state that pertain to connection control for media channels in the Media Gateway (MGW). The MGCF selects a CSCF depending on the routing number for incoming calls from legacy networks and communicates with the CSCF. The MGCF performs protocol conversion between the legacy call control protocols (for example, ISUP) and the 3GPP network call control protocols. The T-SGW 29 maps call-related signaling to/from the PSTN/PLMN on an IP bearer and sends it to/from the MGCF.

> [0023] Within the circuit-switched domain 12, TE 31 may connect through a Mobile Terminal operating in the circuit-switched mode (MT_{CS}) 32 to a radio access network 33 such as GERAN, UTRAN, or the IS-136 RAN. Once again, at the radio access network 33, control signaling is separated from the media payload. The payload goes to an MGW 34 associated with a Mobile Switching Center (MSC) Server 35. The MSC server comprises the call control and mobility control parts of a legacy MSC. The MSC server

> terminates the user network signaling and translates it into the relevant network signaling. The MSC server also contains a Visitor Location Register (VLR) to store the mobile subscriber's service-related data. The MSC server controls the parts of the call state that pertain to connection control for media channels in the associated MGW 34.
>
> [0006] To add IP technology to the wireless network, new nodes must be added such as a Serving General Packet Radio Service (GPRS) Service Node (SGSN) server. A signaling connection is provided from the RNC to the SGSN server for control, and a payload connection is provided from the RNC to an MGW. A Gateway GPRS Service Node (GGSN) together with an MGW provides access to multimedia IP networks. This infrastructure enables a mobile terminal operating in a packet-switched network to access a multimedia IP network. (Surdila, paragraphs [0006, and 0022-0023]).

Applicants respectfully disagree. More specifically, Applicants note that Surdila is wholly silent with regard to transferring signaling information "in alignment with the standard" that specifies a packet quality of service (QoS) as described in the subject application and as explicitly recited in Claim 15. Thus, for this reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and it is respectfully submitted that Claim 15 is not obvious in view of Surdila and Ejzak.

Request For Relief

For each of the various different reasons discussed above, it is respectfully submitted that Claim 15 is not rendered obvious under §103 by the proposed combination of Surdila and Ejzak. It is therefore respectfully requested that the Board reverse the §103 rejection of Claim 15.

Claims 16-20 depend from, either directly or indirectly, and further limit Claim 15, and are believed to be allowable for at least the same reasons as Claim 15.

IX. CONCLUSION

For reasons discussed above, it is respectfully submitted that the rejections of each of pending Claims 1-20 are erroneous. Accordingly, it is respectfully requested that the Board reverse the claim rejections discussed in the foregoing arguments.

Respectfully submitted,

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Enclosures: Claims Appendix
Evidence Appendix
Related Proceedings Appendix

Certificate of Service

I hereby certify that this correspondence is being filed with the U.S. Patent and Trademark Office via EFS-Web on 5-27-08.

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CLAIMS APPENDIX

1. A method for providing a packet-based multimedia service to a mobile device in a network, wherein the service is defined by a telecommunications standard, and wherein the network does not support packet quality of service (QoS) functionality as required by the standard, the method comprising:

establishing a packet signaling connection between the mobile device and network;

establishing a circuit bearer connection between the mobile device and network;

transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard; and

transferring data for the multimedia service via the circuit bearer connection in alignment with the standard, wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality.

2. The method of claim 1 further comprising executing at least one null operation to authorize QoS resources, wherein the operation is null because no QoS is requested due to the circuit bearer connection.

3. The method of claim 1 further comprising controlling the transfer of data via the circuit bearer connection using the signaling information.

4. The method of claim 1 further comprising requesting the circuit bearer connection, wherein the request is initiated by the network.

5. The method of claim 1 further comprising requesting the circuit bearer connection, wherein the request is initiated by the mobile device.

6. The method of claim 1 further comprising maintaining the circuit bearer and packet signaling connections simultaneously.

7. The method of claim 1 further comprising bridging the circuit bearer connection with an endpoint bearer connection, wherein the bridging establishes a link between the mobile device and the endpoint bearer connection.

8. A method for providing a packet-based multimedia service to an endpoint in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard, the method comprising:

establishing a packet-based signaling context between the endpoint and a gateway;

establishing a circuit bearer leg between the endpoint and the gateway using the signaling context; and

controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard.

9. The method of claim 8 further comprising initiating the establishment of the circuit bearer leg by either the endpoint or the gateway.

10. The method of claim 8 further comprising authorizing a previously requested QoS resource, wherein the authorization is null because no QoS is requested due to the circuit bearer connection.

11. The method of claim 10 wherein the authorizing utilizes a packet control function.

12. The method of claim 8 wherein establishing the signaling context includes providing a codec indicating that a circuit bearer is being used.

13. The method of claim 8 wherein establishing the signaling context includes provisioning the endpoint with a null codec to prevent voice packets from being sent via an available packet signaling connection.

14. The method of claim 8 wherein using the signaling context includes using a packet-based session initiation protocol.

15. A telecommunications system for providing a packet-based multimedia service to a mobile station (MS) in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard, the system comprising:

a proxy call session control function (P-CSCF);

a media gateway connected to the P-CSCF; and

a plurality of instructions for executing within the network, the instructions for:

establishing a packet signaling ~~context~~connection between the MS and the P-CSCF;

establishing a circuit bearer connection between the MS and the media gateway;

transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard; and

transferring data for the multimedia service between the media gateway and the MS via the circuit bearer connection in response to the signaling information.

16. The system of claim 15 further comprising a serving call session control function (S-CSCF) connected to the P-CSCF and an endpoint, wherein a communication leg between the S-CSCF and the endpoint can be bridged with the circuit bearer connection to form a call session.

17. The system of claim 15 wherein functionality provided by the media gateway and the P-CSCF is combined in a hybrid service gateway (HSG).

18. The system of claim 17 further comprising a plurality of media servers connected to the HSG via the P-CSCF.

19. The system of claim 15 further comprising: a mobile switching center (MSC) positioned between the MS and the media gateway, wherein the circuit bearer connection is established between the MS and MSC; and an intelligent gateway positioned between the MSC and the P-CSCF, wherein the intelligent gateway maps signaling messages between the P-CSCF and the MSC.

20. The system of claim 15 wherein the network is a universal mobile telecommunications system (UMTS) wireless network, and wherein the telecommunications standard is an internet protocol multimedia subsystem (IMS) standard defined within a third generation partnership project (3GPP).

EVIDENCE APPENDIX

(None).

RELATED PROCEEDINGS APPENDIX

(None).